United States Department of Agriculture
Forest Service
Arizona Zone Entomology and Pathology
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File Code: 3410 **Date:** 3/31/00
Route To: *

Subject: Infestation of Elm Leaf Beetles in the North Kaibab District Office

To: Jill Leonard, District Ranger

Having received a call from Tonjua Holsten on 3/29/00, I am reporting on some options that you would have to deal with the beetle infestation inside the District Office.

The elm leaf beetle, *Pyrrhalta luteola,* is an introduced species that was accidentally brought to this country in the early 1800s. It has spread throughout the United States and is found wherever the elm, *Ulmus spp.,* is found. The beetle attacks all species of elm, however, throughout most of its range it appears to prefer the Siberian elm, *Ulmus pumila*. The insect generally has 2 generations per year, but has been reported to have a third or fourth generation in the warmer parts of the west. Elm leaf beetle overwinters in the adult stage. It chooses protected locations outdoors such as under bark and house shingles, but can also become a nuisance inside sheds, homes, and buildings when the beetles choose to overwinter indoors. The insects are not feeding during this overwintering period. In the spring, the adults fly back to the elm trees where they feed on the expanding leaves producing characteristic holes in them. The females lay eggs in groups of 5 to 25, with each female having the capability of laying 600-800 eggs. The early larvae are black in coloration and feed on the underside of the elm leaves. Later larval instars are green to yellow with lateral black stripes, and a black head. They also feed on the undersurfaces of the leaves. Larval feeding results in leaf skeletonization. When defoliation is severe for several consecutive years, branch and sometimes tree mortality can result.

You have several control options both indoors and outdoors for this insect. The fact that the beetles are currently flying indicates that they are preparing to return to the elm trees to begin their cycle, thus they will not be a problem in your building much longer. The option to do nothing is always present. The option of mechanical control, that is, removing the overwintering beetles by repeated vacuuming could be used as a solution now and if there is a recurrence in the fall. Another solution for your indoor problem might be to use a short residual contact insecticide. It is important to check the label of any insecticide that is to be used to insure that it is registered for this particular use. As always, label directions should be meticulously followed. Outdoors you have three options based on your management goals for the elm trees. Ms. Holsten indicated that the removal of the trees was being considered. This will definitely solve the problem. Replacement with a non-host species of tree would be a good option. If you wish to protect the trees as well as remove the possibility of a repetition of the nuisance in the future, a spray program for the elms could be set up. Finally, depending on the elm leaf beetle population levels in the fall, if you wish only to deal with the nuisance problem, you might consider an insecticidal barrier treatment of the structure to prevent a recurrence of overwintering insects in your building.

If you wish more detailed information or have questions about the information included, please feel free to give me a call at 520-556-2072. If you decide to use an insecticidal treatment, you should contact the Regional Pesticide Coordinator, Doug Parker at 505-842-3280 for his recommendations.

/s/ Roberta A. Fitzgibbon

Roberta A. Fitzgibbon,

Entomologist,

Arizona Zone Entomology and Pathology

E&P: R. Fitzgibbon;3/31/00;520/556-2072.
Concur: J. Wilson:3/31/00:520-556-2074

All uses of pesticides must be registered by appropriate State and/or Federal agencies before they can be recommended.

CAUTION: Pesticides can be injurious to humans, domestic animals, desirable plants, fish or other wildlife-if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal or surplus pesticides and pesticide containers.

CC: Tonjua Holsten
Doug Parker
Deb Allen-Reid
Leonard Lucero
Jill Wilson